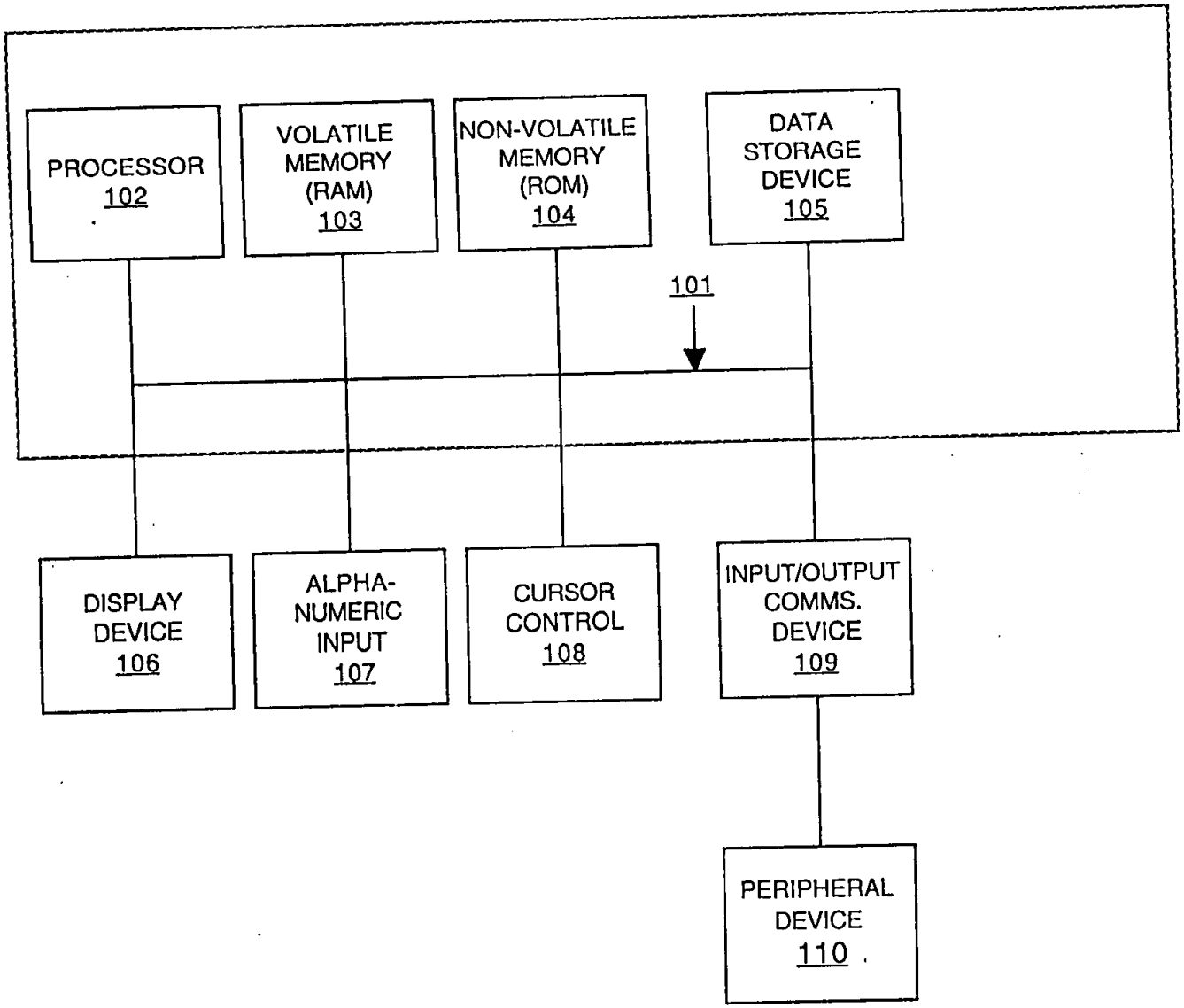
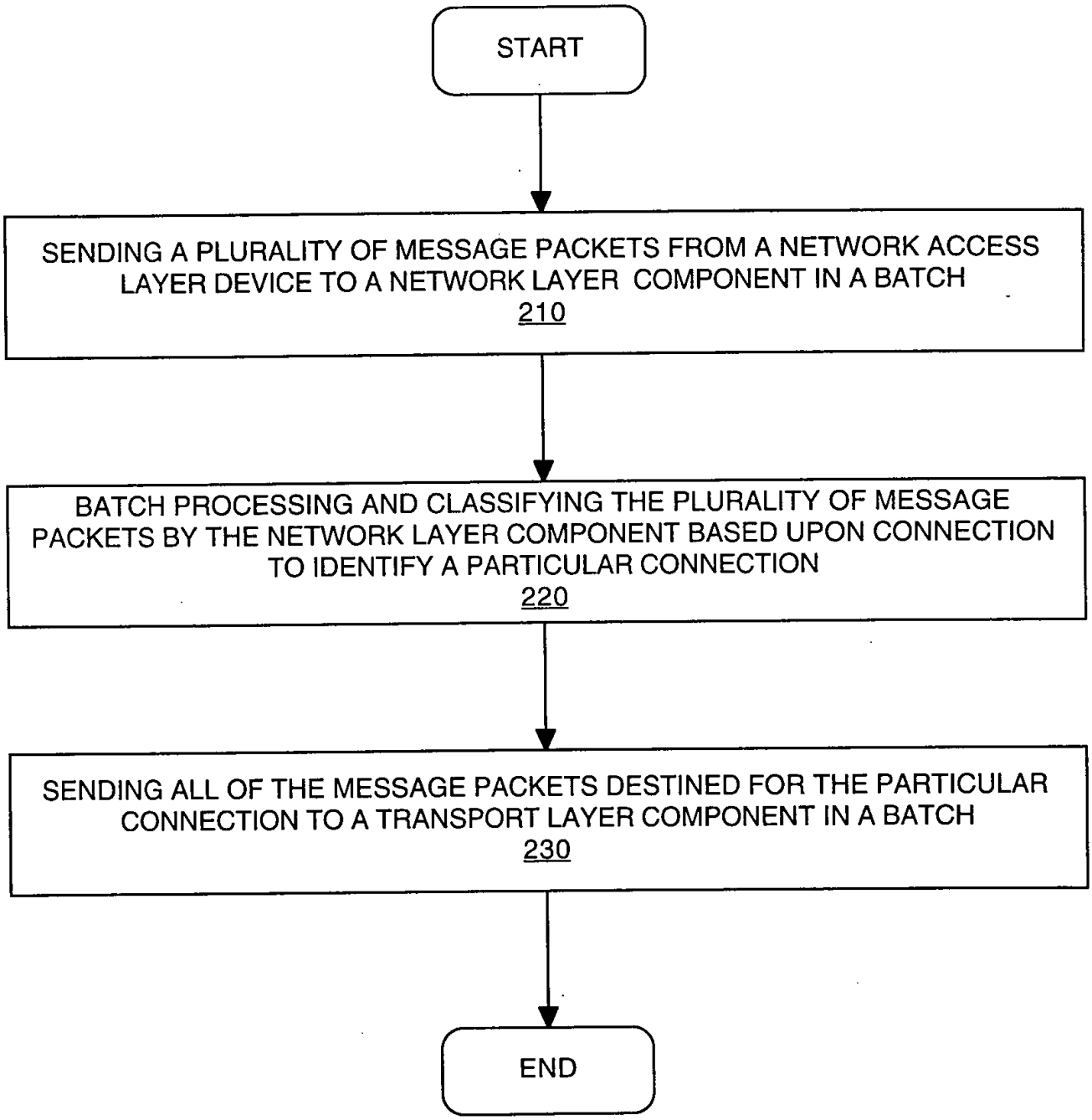
100

Figure 1


PROCESSOR
102
VOLATILE
MEMORY
(RAM)
103
NON-VOLATILE
MEMORY
(ROM)
104
DATA
STORAGE
DEVICE
105
101
DISPLAY
DEVICE
106
ALPHA-
NUMERIC
INPUT
107
CURSOR
CONTROL
108
INPUT/OUTPUT
COMMS.
DEVICE
109
PERIPHERAL
DEVICE
110

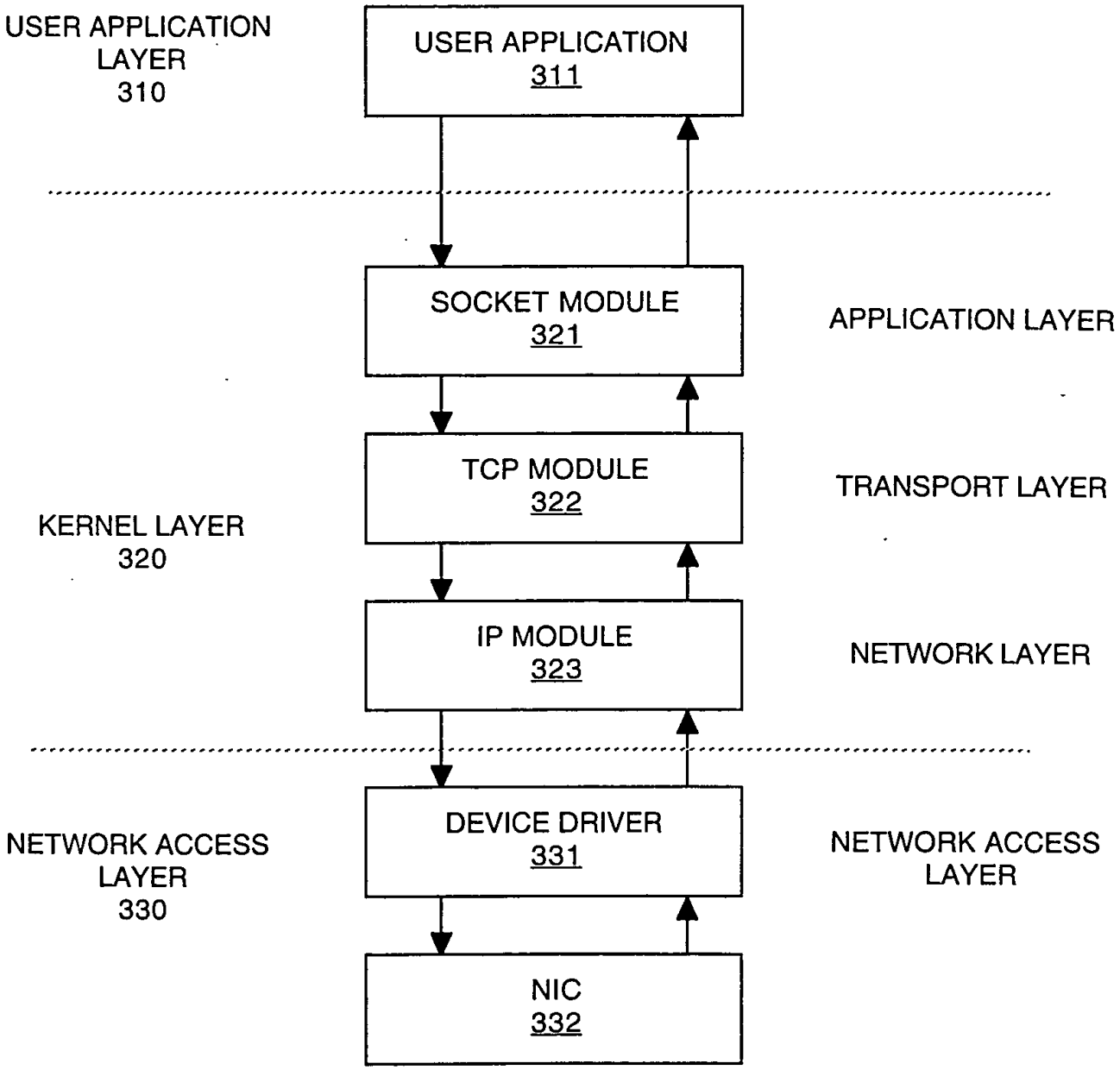
200

FIGURE 2


START
SENDING A PLURALITY OF MESSAGE PACKETS FROM A NETWORK ACCESS LAYER DEVICE TO A NETWORK LAYER COMPONENT IN A BATCH
210
BATCH PROCESSING AND CLASSIFYING THE PLURALITY OF MESSAGE PACKETS BY THE NETWORK LAYER COMPONENT BASED UPON CONNECTION TO IDENTIFY A PARTICULAR CONNECTION
220
SENDING ALL OF THE MESSAGE PACKETS DESTINED FOR THE PARTICULAR CONNECTION TO A TRANSPORT LAYER COMPONENT IN A BATCH
230
END

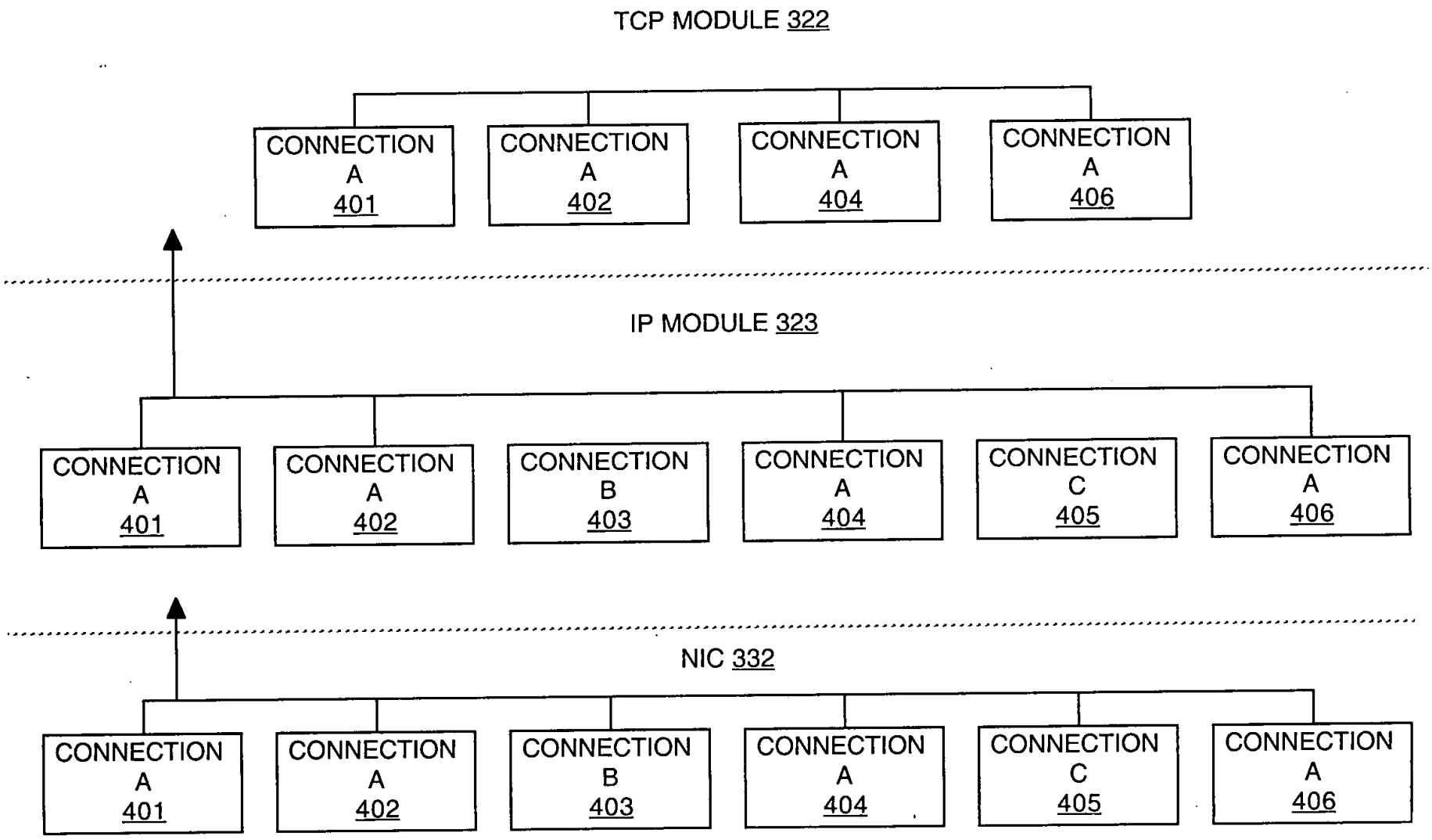
300

FIGURE 3


USER APPLICATION LAYER
310
USER APPLICATION
311
SOCKET MODULE
321
APPLICATION LAYER
TCP MODULE
322
TRANSPORT LAYER
KERNEL LAYER
320
IP MODULE
323
NETWORK LAYER
DEVICE DRIVER
331
NETWORK ACCESS LAYER
NETWORK ACCESS LAYER
330
NIC
332

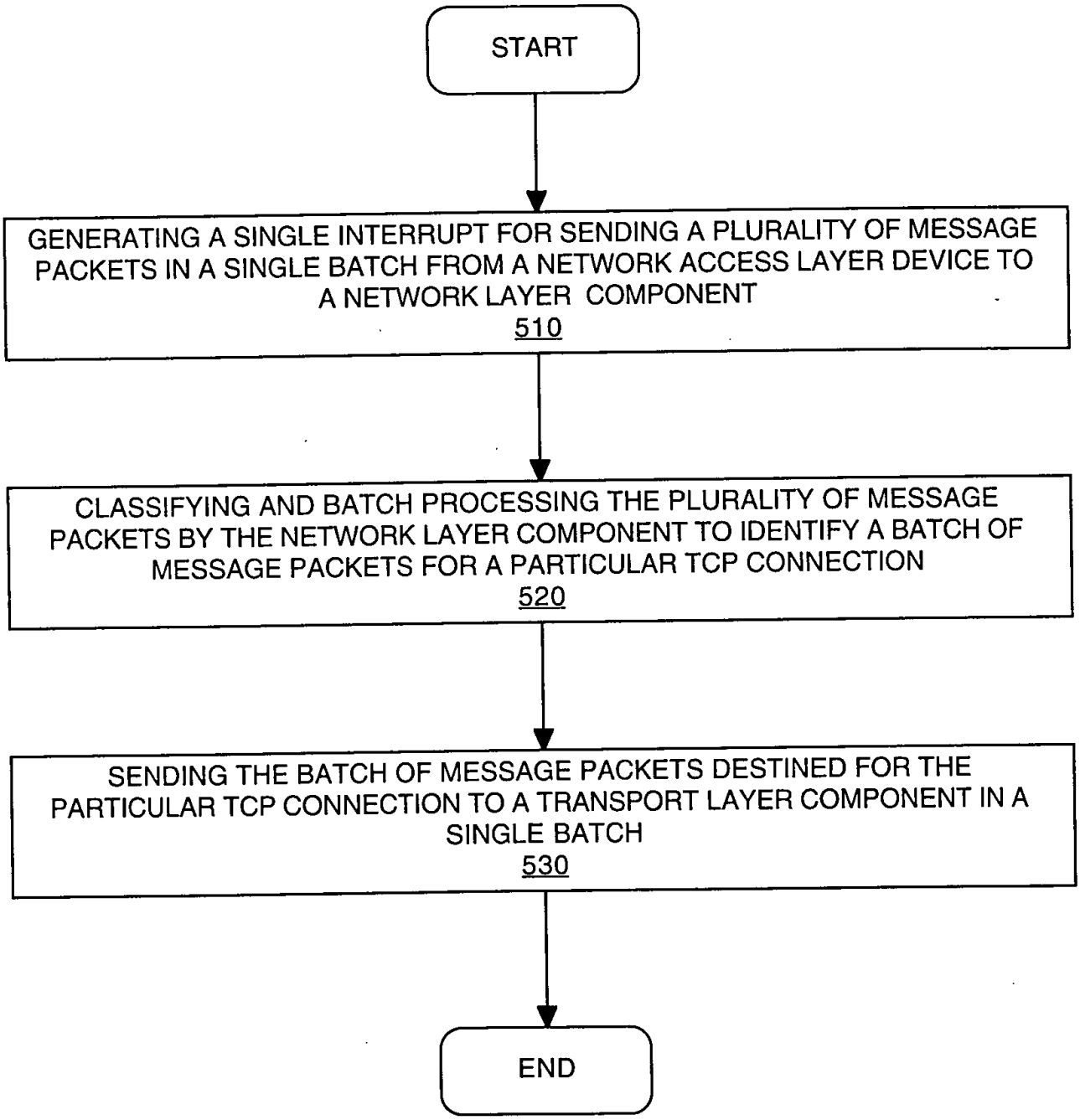
400

FIGURE 4


TCP MODULE 322
CONNECTION A 401
CONNECTION A 402
CONNECTION A 404
CONNECTION A 406
IP MODULE 323
CONNECTION A 401
CONNECTION A 402
CONNECTION B 403
CONNECTION A 404
CONNECTION C 405
CONNECTION A 406
NIC 332
CONNECTION A 401
CONNECTION A 402
CONNECTION B 403
CONNECTION A 404
CONNECTION C 405
CONNECTION A 406

500

FIGURE 5


START
GENERATING A SINGLE INTERRUPT FOR SENDING A PLURALITY OF MESSAGE PACKETS IN A SINGLE BATCH FROM A NETWORK ACCESS LAYER DEVICE TO A NETWORK LAYER COMPONENT
510
CLASSIFYING AND BATCH PROCESSING THE PLURALITY OF MESSAGE PACKETS BY THE NETWORK LAYER COMPONENT TO IDENTIFY A BATCH OF MESSAGE PACKETS FOR A PARTICULAR TCP CONNECTION
520
SENDING THE BATCH OF MESSAGE PACKETS DESTINED FOR THE PARTICULAR TCP CONNECTION TO A TRANSPORT LAYER COMPONENT IN A SINGLE BATCH
530
END